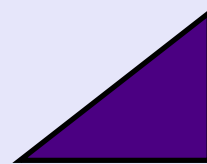
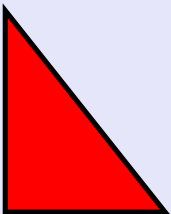
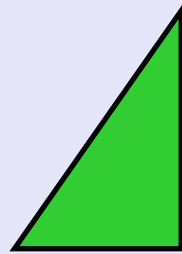


# *Pythagorean Theorem*



$$A^2 + b^2 = C^2$$

25 ft, 21 ft, 33 ft

$$21^2 + 25^2 = 33^2$$

$$441 + 625 = 1089$$

$$1066 \leq 1089$$

ok to use

*Introduction*

*The Theorem*

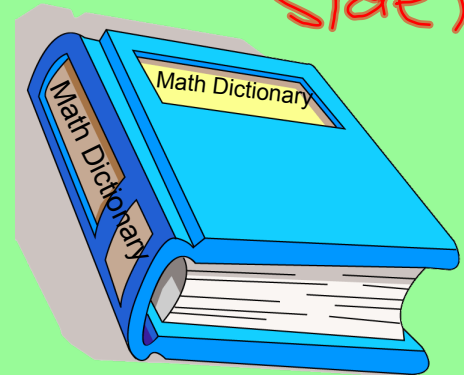
*Add to your Math Dictionary . . .*

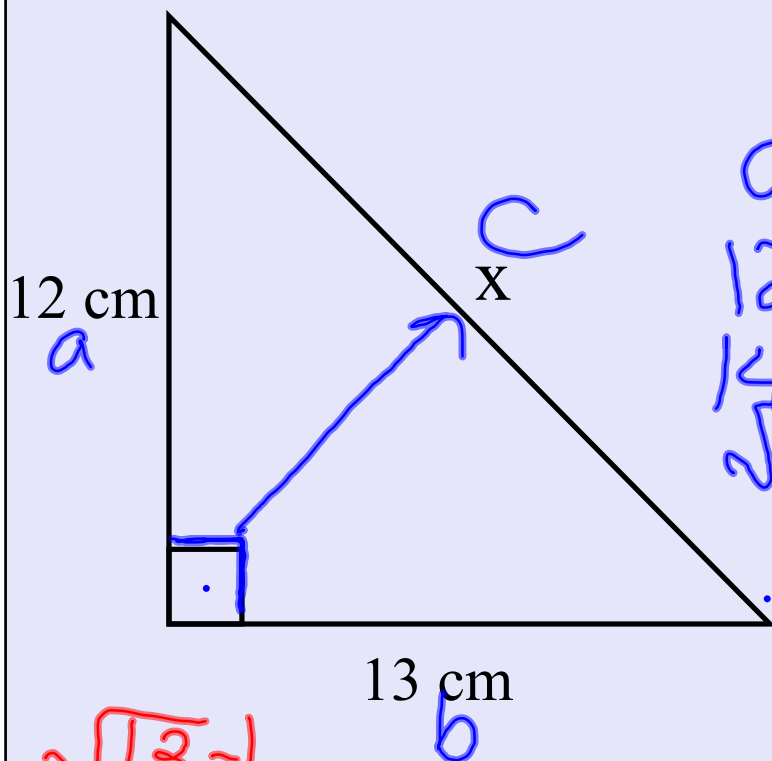
## Pythagorean Theorem

$$a^2 + b^2 = c^2$$

legs

hypotenuse  
(the longest side)



Example 1

$$a^2 + b^2 = c^2$$

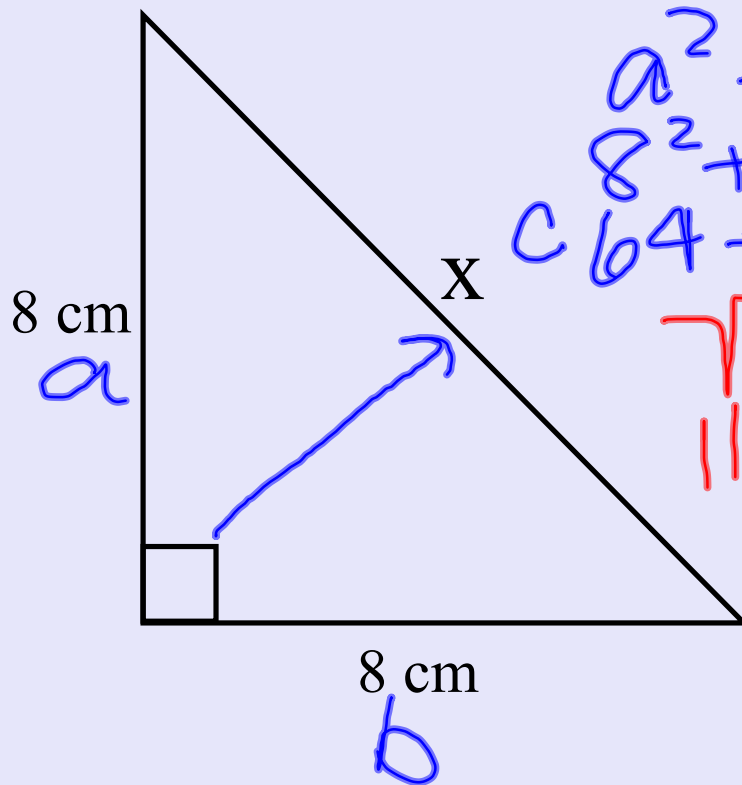
$$12^2 + 13^2 = x^2$$

$$144 + 169 = x^2$$

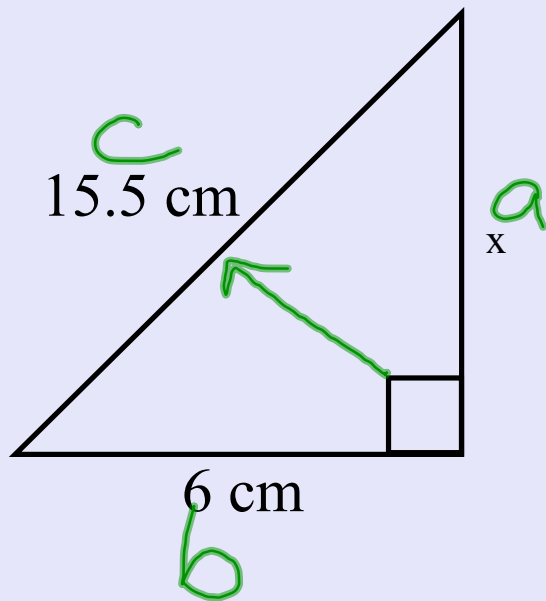
$$\sqrt{313} = \sqrt{x^2}$$

$$17.69 \text{ cm} = x$$

$$\sqrt{b^2} = b$$

Example 2

$$\begin{aligned}a^2 + b^2 &= c^2 \\8^2 + 8^2 &= x^2 \\64 + 64 &= x^2 \\\sqrt{128} &= \sqrt{x^2} \\11.31 \text{ cm} &= x\end{aligned}$$

Example 3

$$\begin{aligned}
 a^2 + b^2 &= c^2 \\
 x^2 + 6^2 &= 15.5^2 \\
 x^2 + 36 &= 240.25 \\
 -36 & \quad -36 \\
 \hline
 \sqrt{x^2} & \quad \sqrt{204.25} \\
 x &= 14.29\text{ cm}
 \end{aligned}$$

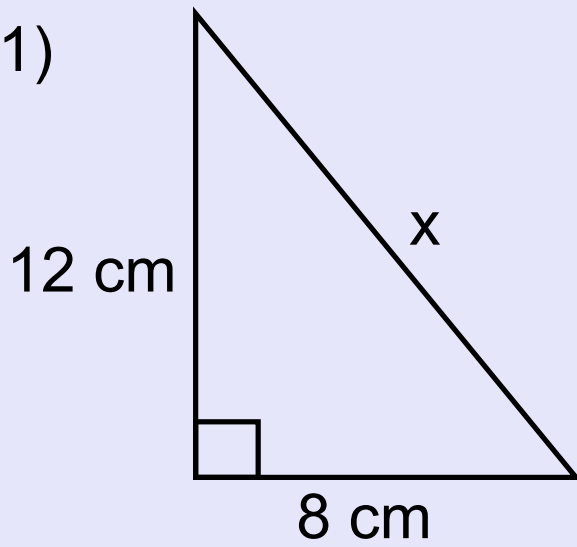
# *Planner Time*



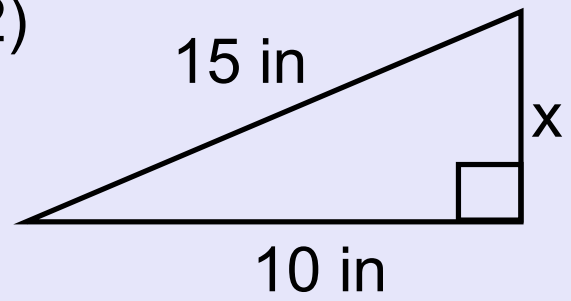
*Pythagorean  
Theorem  
Day Two*

*Let's Review*

1)



2)



# *Planner Time*